

# Work Order ID 72968

Tuesday, August 23, 2011 8:11:11 AM

Page 1

Item ID: D2572

Accept

Revision ID:

Item Name: Saddle, Fwd In 205

Start Date: 8/23/2011 Start Qty: 12.00

Required Date: 8/30/2011 Req'd Qty: 12.00

Reference:

Approvals: Process Plan:

Date: 11-08-23 Tooling:

Date:

QC:

Date: SPC (Y/N):

Date:

Run Start

Stop

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr

Revision Nbr

D2572

Rev E

100

0.00



HAAS CNC VERTICAL MACHINING #1

HAAS I

Memo

0.00

HAAS CNC vertical machine #1

Program Batch No. 72968

Double check by: 29

1-Machine Step No 1 per Folio FA051 and inspect per attached Dimension Sheets

2-Machine Step No 2 per Folio FA051 and inspect per attached Dimension Sheets

3-Machine Step No 3 per Folio FA051 and insp

110

0.00



CONVENTIONAL MILLING MACHINE

Mill Conv

Memo

0.00

Conventional Milling Machine

Machine keyway as per dwg D2571 & D2572

F.K. 11.8.31

12

F.K. 11.8.31

12

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Work Order ID 72968

Tuesday, August 23, 2011 8:11:11 AM



Page 2

Item ID: D2572

Accept



Setup Start



Revision ID:

Stop



Item Name: Saddle, Fwd In 205

Start Date: 8/23/2011 Start Qty: 12.00



Cust Item ID:

Required Date: 8/30/2011 Req'd Qty: 12.00



Customer:

Reference:

Run Start



Approvals: Process Plan: Date:

Tooling: Date:

QC: Date:

SPC (Y/N): Date:

Stop



Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

120

QC2- Inspect parts off machine FAI/FAIB

0.00

*F.K. / 29*

*11.8.31*

*12*



QC

Memo

0.00

Quality Control

130

QC8- Inspect parts - second check

0.00

*SA 11/8/15*

*12*



QC

Memo

0.00

Quality Control

140

Chemical Conversion Coat per QSI005 4.1

0.00



HandFinish

Memo

0.00

Hand Finishing

*12 X 4 M-L 11/09/07*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Work Order ID 72968

Tuesday, August 23, 2011 8:11:11 AM

Page 3

Item ID: D2572

Accept

Revision ID:

Item Name: Saddle, Fwd In 205

Start Date: 8/23/2011 Start Qty: 12.00

Required Date: 8/30/2011 Req'd Qty: 12.00

Reference:

Approvals: Process Plan:

Date:

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Run Start

Stop

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID Tool # Plan  
Code Accept Reject Reject Insp.  
Qty Qty Number Stamp

150

White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum

0.00



Powdercoat

Powder Coating

Memo

START TIME:  
OVEN TEMPERATURE:  
FINISH TIME:

10:30  
320 OF  
11:00

12x Ø M-11/09/07

160

QC3- Inspect Part Finish

0.00



QC

Quality Control

Memo

0.00

12 Ø M 11/09/07

170

Identify as per dwg & Stock Location: ST 433

0.00



Packaging

Packaging

Memo

0.00

Ø

12x

Sp 11-09-08

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

Tuesday, August 23, 2011 8:11:17 AM

Page 1

Work Order ID: 72968

Parent Item: D2572

Parent Item Name: Saddle, Fwd In 205



Start Date: 8/23/2011

Required Date: 8/30/2011

Start Qty: 12.00

Required Qty: 12.00

Comments: IPP: 1102.10.0211 Re-format; Change to Dwg Rev. D & incorporated D257211KJ11

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

D6101-005		Manufactured	No			100	Each	35.0000	1	12			
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Saddle Billet



F.H. 29 11.8.31

## Location

## Loc Qty

## Loc Code

MAT

8

71721

8

MAT045

10

70677 ✓

10

MAT046

17

66966

3

72227 ✓

14

10

2

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



<b>DART AEROSPACE LTD</b>	<b>Work Order:</b>	72968
<b>Description:</b> Saddle, Fwd Inboard	<b>Part Number:</b>	D2572
<b>Inspection Dwg:</b> D2572 Rev. E		Page 1 of 1

Inspect dimensions highlighted on inspection sheet drawing D2572 Rev. E and record below:

Dim	Min	Max	Go/No Go Gauge	Recorded Actual Dimensions				By	Date
				1	2	3	4		
A	0.438	0.443		.440	.440	.440	.440		
B	1.745	1.755		1.750	1.750	1.750	1.750		
C	3.495	3.505		3.500	3.500	3.500	3.500		
D	1.745	1.755		1.750	1.750	1.750	1.750		
E	7.990	8.010		8.001	8.001	8.000	8.000		
F	0.490	0.510		.500	.500	.500	.500		
G	0.257	0.262		.257	.257	.257	.258		
H	0.375	0.380		.376	.375	.375	.375		
I	0.490	0.510		.500	.500	.500	.500		
J	1.174	1.184		1.179	1.179	1.179	1.179		
K	0.558	0.578		.568	.569	.569	.569		
L	1.174	1.184		1.179	1.179	1.179	1.179		
M	1.490	1.500		1.495	1.495	1.495	1.495		
N	2.495	2.505		2.500	2.500	2.500	2.500		
O	3.869	3.879		3.874	3.874	3.874	3.874		
P	0.115	0.135		.130	.130	.126	.126		
Q	0.115	0.135		.135	.135	.135	.135		
R	0.240	0.260		.256	.256	.250	.250		
S	0.115	0.135		.130	.130	.130	.130		
T	0.178	0.198		.188	.188	.188	.188		
U	2.940	2.980		2.960	2.960	2.960	2.960		
V	0.230	0.250		.248	.248	.240	.240		
W	0.115	0.135		.119	.125	.123	.132		
X	0.307	0.312		.311	.310	.310	.310		
Y	0.760	0.765		.760	.760	.760	.760		
Z	0.352	0.372		.362	.362	.362	.362		
AA	0.470	0.530		.50	.50	.50	.50		
AB	0.615	0.635		.623	.624	.625	.625		
AC	0.053	0.073		.063	.063	.063	.063		
AD	0.240	0.260		.256	.254	.250	.250		
AE	1.375	1.395		1.383	1.383	1.386	1.384		
AF	0.115	0.135		.130	.130	.135	.135		
AG	0.240	0.280		.260	.260	.260	.260		
AH	0.240	0.260		.257	.256	.250	.250		
AI	2.000	2.020		2.000	2.001	2.002	2.001		
AJ	0.023	0.043		.033	.033	.033	.033		
Accept/Reject									

Measured by:	KK. / 10/12
Date:	11/09/02

Audited by:	[Signature]
Date:	11/11/15

Rev	Date	Change	Revised by	Approved
A		New Issue	RF	
B	02.09.24	Re-format; Added Rev. D	KJ	
C	02.10.11	Re-format; Added DT8682, DT8683, DT8684	KJ	
D	05.05.05	Added dimension AI	KJ/RF	
E	05.12.05	Added dimension AJ	KJ/JLM	[Signature]

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_



NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

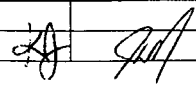
**NOTE:** Date & initial all entries

<b>DART AEROSPACE LTD</b>	<b>Work Order:</b>	72968
<b>Description:</b> Saddle, Fwd Inboard	<b>Part Number:</b>	D2572
<b>Inspection Dwg:</b> D2572 Rev. E		Page 1 of 1

Inspect dimensions highlighted on inspection sheet drawing D2572 Rev. E and record below:

Dim	Min	Max	Go/No Go Gauge	Recorded Actual Dimensions				By	Date
				15	16	17	18		
A	0.438	0.443		.440	.440	.440	.440		
B	1.745	1.755		1.750	1.750	1.750	1.750		
C	3.495	3.505		3.500	3.500	3.500	3.500		
D	1.745	1.755		1.750	1.750	1.750	1.750		
E	7.990	8.010		8.001	8.001	8.001	8.001		
F	0.490	0.510		.500	.500	.500	.502		
G	0.257	0.262		.257	.259	.259	.259		
H	0.375	0.380		.376	.377	.376	.376		
I	0.490	0.510		.500	.500	.500	.500		
J	1.174	1.184		1.179	1.179	1.179	1.179		
K	0.558	0.578		.568	.568	.568	.567		
L	1.174	1.184		1.179	1.179	1.179	1.179		
M	1.490	1.500		1.495	1.495	1.495	1.495		
N	2.495	2.505		2.500	2.500	2.500	2.500		
O	3.869	3.879		3.874	3.874	3.874	3.874		
P	0.115	0.135		.130	.124	.124	.125		
Q	0.115	0.135		.135	.135	.135	.135		
R	0.240	0.260		.251	.261	.256	.249		
S	0.115	0.135		.130	.130	.130	.130		
T	0.178	0.198		.188	.188	.188	.188		
U	2.940	2.980		2.960	2.960	2.960	2.960		
V	0.230	0.250		.248	.248	.248	.241		
W	0.115	0.135		.119	.119	.119	.130		
X	0.307	0.312		.311	.311	.311	.310		
Y	0.760	0.765		.760	.760	.760	.760		
Z	0.352	0.372		.364	.366	.366	.362		
AA	0.470	0.530		.500	.500	.500	.500		
AB	0.615	0.635		.623	.623	.623	.624		
AC	0.053	0.073		.063	.063	.063	.063		
AD	0.240	0.260		.251	.251	.251	.248		
AE	1.375	1.395		1.384	1.387	1.387	1.389		
AF	0.115	0.135		.135	.136	.136	.135		
AG	0.240	0.280		.260	.260	.260	.260		
AH	0.240	0.260		.257	.257	.257	.250		
AI	2.000	2.020		2.002	2.004	2.000	2.000		
AJ	0.023	0.043		.033	.033	.033	.033		
Accept/Reject									

Measured by: 	Audited by: 
Date: 11.9.2	Date: 11.15.1

Rev	Date	Change	Revised by	Approved
A		New Issue	RF	
B	02.09.24	Re-format; Added Rev. D	KJ	
C	02.10.11	Re-format; Added DT8682, DT8683, DT8684	KJ	
D	05.05.05	Added dimension AI	KJ/RF	
E	05.12.05	Added dimension AJ	KJ/JLM	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

<b>DART AEROSPACE LTD</b>	<b>Work Order:</b>	72968
<b>Description:</b> Saddle, Fwd Inboard	<b>Part Number:</b>	D2572
<b>Inspection Dwg:</b> D2572 Rev. E		Page 1 of 1

Inspect dimensions highlighted on inspection sheet drawing D2572 Rev. E and record below:

				Recorded Actual Dimensions				By	Date
Dim	Min	Max	Go/No Go Gauge	# 9	# 10	# 11	# 12		
A	0.438	0.443		.440	.440	.440	.440		
B	1.745	1.755		1.750	1.750	1.750	1.750		
C	3.495	3.505		3.500	3.500	3.500	3.500		
D	1.745	1.755		1.750	1.750	1.750	1.750		
E	7.990	8.010		8.001	8.001	8.001	8.001		
F	0.490	0.510		.502	.500	.499	.500		
G	0.257	0.262		.259	.259	.259	.259		
H	0.375	0.380		.376	.376	.376	.376		
I	0.490	0.510		.498	.495	.498	.498		
J	1.174	1.184		1.179	1.179	1.179	1.179		
K	0.558	0.578		.563	.563	.567	.568		
L	1.174	1.184		1.179	1.179	1.179	1.179		
M	1.490	1.500		1.495	1.495	1.495	1.495		
N	2.495	2.505		2.500	2.500	2.500	2.500		
O	3.869	3.879		3.874	3.874	3.874	3.874		
P	0.115	0.135		.124	.124	.124	.125		
Q	0.115	0.135		.135	.135	.135	.135		
R	0.240	0.260		.249	.250	.250	.248		
S	0.115	0.135		.131	.132	.130	.132		
T	0.178	0.198		.188	.188	.188	.188		
U	2.940	2.980		2.960	2.966	2.960	2.960		
V	0.230	0.250		.240	.240	.240	.240		
W	0.115	0.135		.131	.133	.132	.132		
X	0.307	0.312		.310	.310	.308	.308		
Y	0.760	0.765		.760	.760	.760	.760		
Z	0.352	0.372		.360	.360	.360	.360		
AA	0.470	0.530		.500	.500	.500	.500		
AB	0.615	0.635		.623	.623	.624	.623		
AC	0.053	0.073		.063	.063	.063	.063		
AD	0.240	0.260		.247	.245	.247	.247		
AE	1.375	1.395		1.385	1.385	1.384	1.384		
AF	0.115	0.135		.135	.135	.135	.135		
AG	0.240	0.280		.260	.260	.260	.260		
AH	0.240	0.260		.250	.250	.248	.249		
AI	2.000	2.020		2.001	2.001	2.000	2.001		
AJ	0.023	0.043		.033	.033	.033	.033		
Accept/Reject									

Measured by:	<i>mf</i>
Date:	11/09/03

Audited by:	<i>SA</i>
Date:	11/9/05

Rev	Date	Change	Revised by	Approved
A		New Issue	RF	
B	02.09.24	Re-format; Added Rev. D	KJ	
C	02.10.11	Re-format; Added DT8682, DT8683, DT8684	KJ	
D	05.05.05	Added dimension AI	KJ/RF	
E	05.12.05	Added dimension AJ	KJ/JLM	<i>SA</i>

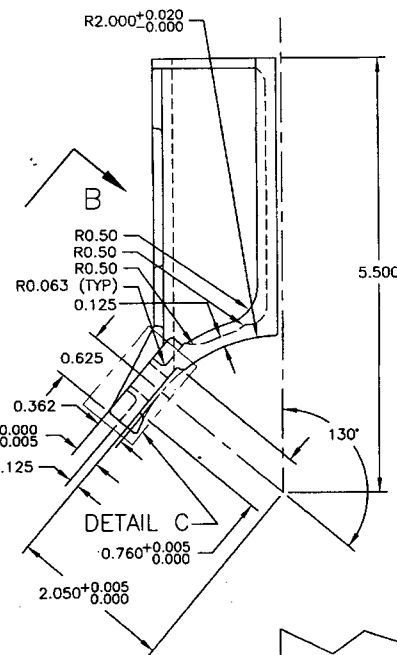
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_






NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

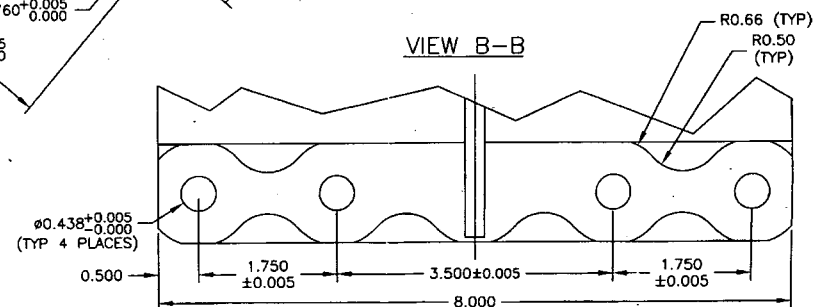
**NOTE:** Date & initial all entries



05.12.06 ~~11~~




MATERIAL: 7075-T7351 (QQ-A-250/12)  
(REF DART SPEC. D6102-003)  
FINISH: ACEF ETCH, ALODINE PER DART QSI 005 4.1  
POWDER COAT GLOSS WHITE (REF 4.3.5.1) PER  
DART QSI 005 4.3  
BREAK ALL SHARP EDGES 0.010 TO 0.020  
TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

- |   |  |
|---|--|
|  | ENGRAVE PART AND BATCH NUMBER IN THIS AREA TO MAX DEPTH OF 0.010 |
|  | CHAMFER 0.063" x 45° AROUND THIS SURFACE (TYPICAL 2 PLACES)      |
|  | CHAMFER 0.063 x 45° ALL AROUND                                   |
|  | CHAMFER 0.033 x 45° (SEE DETAIL C)                               |
- 



DETAIL C  
SCALE 2:1

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OR COPIED OR COMMUNICATED TO ANY OTHER  
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DART AEROSPACE LTD.

E	05.07.13	ADD CHAMFER ON RIDGE NOTE 4
D	02.09.06	ADD RIDGES; TIGHTEN TOLERANCES
C	99.10.22	INCORP. DEO 9123/9079/9102 ADD DIMENSIONS PER TSR A1177
B	96.12.02	ADD GRAIN DIR., 0.438 WAS 0.425
A	96.09.16	NEW ISSUE
DESIGN <b>DS</b> DRAWN BY <b>PH</b>  <b>DART AEROSPACE LTD.</b> HARRISBURY, ONTARIO, CANADA		REV. 1
CHECKED 	APPROVED 	DRAWING NO. <b>D2572</b> SHEET 1 OF 2
DATE 05.07.13		TITLE <b>INNER FWD SADDLE</b> SCALE 2:1

2/11-28-23